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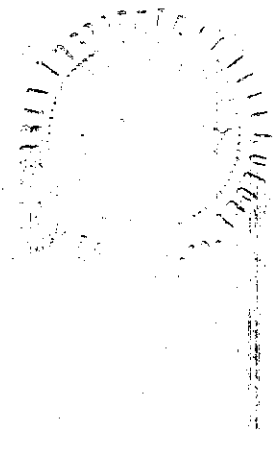
PRINCIPLES OF LAYOUT AND DESIGN  
FOR GRAPHIC PRESENTATION OF PLANNING MATERIAL

A THESIS

Presented to  
the Faculty of the Graduate Division  
by  
Thomas Dale Featherston

In Partial Fulfillment  
of the Requirements for the Degree  
Master of City Planning

Georgia Institute of Technology  
November, 1962



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Date approved by Chairman: Nov. 27, 1962

## ACKNOWLEDGMENTS

Like other students, the author is indebted to many people who were helpful in various ways. Miss Natelle Isley of the Library of the School of Architecture furnished valuable assistance. Particular appreciation is felt for the advice and assistance provided by Professors Howard K. Menhinick, Malcolm G. Little, and A. Frank Beckum.

It is impossible to acknowledge one's total indebtedness in a learning process. Through past experiences, current studies, and group discussions, views and concepts of others are assimilated unknowingly. If the author has failed to credit ideas and phraseology which should have been acknowledged, the omission has been unintentional.

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## SUMMARY

Establishing satisfactory communication with the local public is an important planning problem. Written and oral presentations are required. Graphic presentations are needed to illustrate planning messages and to provide a form of communication which is easy to understand. Although graphic material is frequently used to present a planning message, these presentations are often inadequate.

The purpose of this study is to provide theoretical and practical information on the preparation of a graphic presentation of planning material. General procedures and broad principles are discussed, but specific suggestions are limited. Specific details of preparing a satisfactory graphic presentation vary with local conditions.

An attempt has been made to separate the functions of the planning director and the functions of the planning technician. Presenting the message, evaluating the audience, and budgeting time and cost are stated to be the director's function. Using design principles and preparing graphic exhibitions are stated to be the technician's function.

The study points out that the use of graphic illustration has both advantages and disadvantages and that considering the viewer is a major factor in the preparation of a successful graphic exhibition.

The study concludes that no one method of preparing a graphic presentation is appropriate for every situation. Standards are unavailable for deciding when to use certain types of graphic material and when to use certain styles of layout arrangement. Areas of responsibility exist for the planning director and for the planning technician, but the areas overlap. The preparation of a graphic presentation of planning material should be a team project.

## CHAPTER I

### INTRODUCTION

The graphic presentation of planning material often provides an important service in the communication of planning ideas. Presenting the facts of an urban situation in an easily recognizable manner, graphic illustration can depict, and thus explain, the value of planning. A graphic exhibition of planning material can portray visually the existing negatives of blight and overcrowded conditions and, at the same time, portray the positive benefits of urban planning.

Municipal governments have a responsibility to inform the public about existing situations and about plans for improvement. Planning officials have a responsibility to inform the public about planning objectives. As an effective method of gaining support for planning objectives, professional planners have learned to acquaint club members, elected officials, and ordinary citizens with planning programs. Written and oral presentations are necessary. Visual presentations are required in order to reach a segment of the population which is difficult to reach by published reports and civic lectures.

Although illustrated brochures and graphic exhibitions



are used by many planning agencies, these presentations are not always satisfactorily prepared. At the 1952 meeting of the American Society of Planning Officials, John F. Hunt stated:

We were shown a presentation which attempted to interpret this project. The member of the plan commission who approached us had little confidence in this presentation. He was right. For an audience restricted to city planners, the presentation would probably have been intelligible. For a non-professional audience, it offered only confusion. (1)

The importance of visual communication is generally recognized by experienced planners; however, the subject is seldom discussed at professional meetings or in professional publications. The American Society of Planning Officials has provided sessions on public relations at annual meetings of the organization, but emphasis has been placed on the need for rather than on the preparation of visual material.

The purpose of this study is to contribute to existing knowledge concerning graphic presentation of planning material. Because public support of urban planning is necessary before planning proposals are influential in the formulation of governmental policy, knowledge concerning methods of establishing communication with the public is important. Knowledge concerning graphic communication should be useful.

The discussion includes information which is applicable to the illustration of written and oral reports and to the preparation of graphic exhibitions of planning mater-

ial. Both theoretical and practical information are provided. The thesis recognizes that no one procedure or no one layout arrangement is appropriate for every situation. It is the general procedure and the basic principles which are the important considerations of this study. Emphasis is placed upon the separate functions of the planning director and the planning technician. Throughout the thesis an appeal is made to direct a graphic presentation to the individuality of the audience.

Chapter II, The Director's Function, discusses presenting the message, evaluating the audience, and budgeting time and cost. Chapter III, The Technician's Function, offers suggestions on using design principles and preparing graphic exhibitions. Chapter IV, Conclusions, points out the lack of standard procedures and the need for staff cooperation in the preparation of a graphic presentation.

The discussion does not cover the entire field of visual communication. The discussion is limited to the fundamental concepts of graphic presentation which are likely to be needed by staff members of a planning agency. The information does not cover the arrangement of a series of pages, such as the format of a brochure or the organization of several panels in a large exhibition.

While suggestions are offered on the use of visual spaces and on the use of design principles, the thesis should not be interpreted as a manual for visual designers. No

attempt is made to provide information on all phases of esthetic design.

The information provided is addressed primarily to the professional planner who originates a graphic presentation and to the staff employee who produces a graphic presentation. However, many of the points discussed and the suggestions offered should be useful to other members of a planning staff who are concerned with the communication of planning matter. The discussion should be of interest to students in urban planning, but the discussion is intended primarily for those members of a planning staff who are inexperienced in the preparation of a graphic presentation.

## CHAPTER II

### THE DIRECTOR'S FUNCTION

The director of planning is responsible for the public presentation of planning information and for the graphic presentation of planning material to supplement this information. As the person responsible for the presentation of a planning message, it is the director who should decide the need for illustrative material. It is the director who must be satisfied with the finished production. If a graphic illustration or a graphic exhibition does not fulfill an intended purpose, the director must reject the presentation and ask for improvement or revision.

Usually, the director's function in the preparation of a graphic presentation is both general and specific. General functions include initial conferences with staff personnel and constant supervision of the duties assigned to staff personnel. Specific functions include supplying preliminary information relating to the presentation.

Information which should be supplied by the director --or by a member of the professional staff who has been assigned responsibility for a particular exhibit--will vary with each presentation. Fundamentally, the director should provide information on (1) presenting the message, (2) eval-

uating the audience, and (3) budgeting time and cost.

### Presenting the Message

An important function of the planning director is to decide if graphic material is needed to present a planning message. After the director, or assistant, has gathered the facts of a situation, the director should determine a form of communication which is acceptable to the audience. The director should decide if the message would be more effective as a written presentation, an oral presentation, or a visual presentation. After a decision has been made to prepare the message--or part of the message--as a visual presentation, the director should determine (1) the use of graphic illustration, (2) the purpose of graphic exhibition, and (3) the type of graphic material.

### Use of Graphic Illustration

The use of graphic illustration should be considered carefully. Deciding to use pictorial illustration with a written or oral presentation of planning material should be part of the decision to present a planning message, and the decision, preferably, should be made at the time of organizing the planning message. The director--not the illustrator, photographer, or draftsman--should determine whether to use one or more illustrations and whether certain details of an illustration should be suppressed or emphasized.

Illustrations which are used with planning messages have both advantages and disadvantages.

Advantages. Illustrations often are essential in the presentation of a planning message. Graphic material is not only appreciated by an audience but frequently necessary for a clear understanding of a planning message. Language alone can only create mental images, and these images may be incorrect or misleading.

Although the result of planning research, generally, must be presented in words in order to provide a detailed explanation, words alone may not be adequate. Where planning terminology may have a different meaning for different people--for instance, the term, "substandard housing"--photographs help to clarify the meaning of words. Where the number of words required would be excessively long, illustrations may be helpful. For example, drawings which show a plan for the redevelopment of a central business district provide a comprehensive picture of the plan and assist words in presenting the planning message.

Illustrations have advantages other than the clarification of words. A list of uses for graphic material in the presentation of a planning message includes illustrations for:

1. Reference. A single map is often used to serve as a reference illustration for different matter throughout a planning message.
2. Emphasis. A photograph of congested traffic at a particular location will emphasize the need for traffic

control at that location.

3. Simplification. An organization chart will simplify an explanation of the administrative lines of responsibility in a municipal government.
4. Comparison. A bar graph is often used to compare two or more items of statistical data. Also, illustrations of alternate physical plans enable the viewer to compare the important features of each plan.

A special use for graphic illustration is found in the preparation of covers for reports and brochures. Although reports which are prepared for professional readers ordinarily do not use ornamentation, reports and brochures which are prepared for the general public can benefit from attractive, illustrative covers. Brochures of planning proposals must compete for attention with other reading matter, and a cover with illustrative material offers an appeal to investigate the planning message.

Disadvantages. In addition to the many advantages of graphic illustration, there are also disadvantages. Illustrations often tend to attract attention to themselves and to neglect or ignore the planning message. Although it may be normal for a picture to possess an individual appeal, such illustrations maintain two disadvantages. First, the reader may be inclined to examine the illustration carefully and to postpone reading the planning message. Second, the reader may examine the illustration, lose continuity of the

discussion, and misunderstand the planning message.

A limitation which is normally found in graphic illustration is inflexibility. While a speaker might take into consideration an unexpected situation and adjust a prepared speech accordingly, the illustration can not be adjusted and may seem to conflict with the meaning of the planning message as presented.

Summary. The director should decide the reason for using pictorial material. Using graphic illustration should never be routine, and selecting a random number of illustrations should not be permitted. Although the use of graphic material tends to add attractiveness to planning reports, illustrations should not be used in technical reports, oral or written, unless a specific need exists. Illustrations should be used where an understanding of the planning message is strengthened but only where the message is benefited.

#### Purposes of Graphic Exhibition

The primary purpose of graphic exhibition is visual communication. A graphic exhibition is often prepared either to present a planning message where additional explanation is impractical or where a visual presentation is more effective than a written or oral presentation. For example, when placed in the lobby of an office building or public school, a graphic exhibition is able to provide a planning message without further explanation and able to reach a segment of the population which is difficult to



reach by published reports and civic lectures.

The secondary purposes of planning exhibits differ as their planning functions differ. Although various reasons exist for the preparation of graphic exhibitions by planning agencies, the two basic planning purposes are (1) information and (2) recommendation.

Information. A complete list of the different reasons for preparing exhibitions which provide planning information would be overly long. A few examples are:

1. To inform the public about an existing urban condition.
2. To inform the public about a new planning proposal.
3. To provide information on the organization of a new planning commission.
4. To provide information on the progress of an existing planning commission.

Graphic exhibitions of planning information can be divided into formal and informal exhibits.

Formal exhibits, which may be of any size, should bear the authority and the approval of the planning commission. Formal exhibits serve as a means of expressing official facts and opinions. For example, a base map may show the location of zoning districts for a new zoning ordinance and express the formal approval of the planning commission.

Informal exhibits of planning information, usually, do not bear the approval of the planning commission. Normally, informal exhibits are prepared, with the director's

permission, for use by staff personnel as a visual aid in the preparation of planning studies. For example, a base map may show the temporary location of zoning districts for a new zoning ordinance and the exhibit used to obtain opinions of individuals who are co-operating in the development of the zoning ordinance. Informal exhibits may be large and detailed, but the information is preliminary and incomplete.

Recommendation. A few examples of the planning reasons for preparing exhibitions which offer a message of recommendation are:

1. To recommend public support for a new planning proposal.
2. To recommend public support for a particular bond issue.
3. To recommend active participation in a rehabilitation project.

A graphic exhibition which contains a planning message of recommendation will endeavor to influence the opinion of the viewer. The message should state the opinion of the planning director, or perhaps the planning commission, and the opinion should be substantiated by facts. The message may contain an alternate course of action, but the message should state a preference, and the viewer should know, without question, what action is recommended.

When the planning purpose of a graphic exhibition is to make a recommendation, the message should plainly state:

1. What is recommended--slum clearance of a depressed area, for instance.
2. Why the recommendation is made--the humanitarian facts involved.
3. How the recommendation will affect an urban situation--the potential redevelopment plan of the area.

Summary. A graphic exhibition which presents the facts of an urban condition should differ from an exhibition which recommends action. Although graphic exhibitions of recommendation contain information, emphasis should be placed upon the recommendation and not upon the information. There should be no question as to whether the viewer is expected to understand certain information or to accept a certain recommendation.

#### Types of Graphic Material

In addition to other decisions relating to the planning message, the type of illustration should be determined by, or approved by, the planning director. The director normally will seek advice on the use of different material, but the director should decide which type of graphic illustration would best provide an interpretation of the planning message.

A classification which might add to an understanding of the function of different types of graphic illustrations would include:

Maps--to show locations.

1. Geographic features (rivers; mountains; swamps.)
2. Political boundaries (state; county; city.)
3. Statistical data:

Crosshatched, spot, and flow maps.

Charts--to show relationships.

1. Organization (organization of clubs and agencies)
2. Pie, or circle (percentages of a whole)

Graphs--to show statistical data.

1. Trends

Arithmetic (magnitude of change)

Semilogarithmic (rate of change)

2. Comparison

Bar (separate masses)

Pictorial-symbol (popular appeal)

Photographs--to show existing conditions.

1. Unretouched (documentary)
2. Retouched (studio)
3. Portion removed (cropped)
4. Composite picture (montage)

Drawings--to show future proposals.

1. Plan and elevation (line)
2. Light and dark tones (crosshatching or dots)
3. Color rendering
4. Perspectives (three-dimensional effect)

Maps. When the subject of a planning message centers

around the location of data or the relationship between land uses, maps are effective in illustrating different aspects of the message. Maps are particularly appropriate for presenting the geographic features and the political boundaries of an area. Maps are used to interpret planning messages concerning streets, highways, and traffic matters. Explaining a variety of planning subjects, maps of different sizes, forms, and scales are used to help establish a planning message.

Maps are useful in the presentation of statistical information. As a means of portraying statistical data of a geographic nature, and the spatial distribution of data, statistical maps are informative and meaningful. Different types of statistical maps are (1) crosshatched maps, (2) spot maps, and (3) flow maps. Crosshatched maps are useful in showing a variation in the magnitude of data by using shading or crosshatching. Spot maps are used to show the location of data and to show frequencies occurring within a location. Flow maps are effective in presenting planning data when the movement of physical items is represented, especially the movement of vehicles at congested intersections. In the presentation of a planning message, statistical maps are useful to indicate problems of changing populations and of shifting employment locations.

Charts. Organization charts and pie charts are the two forms of charts which are ordinarily understood and,

therefore, effective as part of a public presentation of planning material.

Organization charts provide a visual understanding of the administrative structure of clubs, societies, and institutions. Organization charts also show the functional relationship between sections of organizations.

Pie, or circle, charts are used to present comparisons of one complete amount. The circle represents 100 per cent, and the segments represent parts of the whole. When a planning message concerns the relationship of separate items to a whole, a pie chart is an appropriate means of illustration.

Graphs. There are many different kinds of statistical graphs which might be used in presenting a planning message. The commonly used graphs--and the kinds likely to be understood by the general public--are (1) arithmetic, (2) semilogarithmic, (3) bar, and (4) pictorial-symbol.

Arithmetic graphs show the magnitude of change, especially over a long period of time. The cost of city government over a number of years, for instance.

Semilogarithmic graphs show the rate of change, especially where the differences are great.

Bar graphs are easy to read and popular with nontechnical viewers. Bar graphs are effective when separate units are compared--acreage of different land uses, for instance.

Pictorial-symbol graphs use picture-like symbols to

interpret data. To the layman who is inexperienced in the interpretation of data, pictorial symbols have a strong attraction.

Photographs. Photographs are a familiar form of visual presentation and, for this reason, an effective medium for illustrating a planning message. Photographs are especially useful in illustrating unfamiliar planning ideas. When depicting the existing condition of an urban situation, photographs show the details of an area and the relationship between the physical features of the area. For example, photographs are an excellent means of showing the incompatibility of gasoline stations and single family houses or the inconsistency of an industrial storage yard in a retail shopping district.

The different types of photographs which might be used in the presentation of a planning message are (1) documentary, (2) studio, (3) cropped, and (4) montage.

Documentary photographs show the existing physical condition--documentary evidence. Where a photograph is used to illustrate an actual condition, retouching should not be allowed. If a viewer can detect any alteration, the value of the illustration as a document is lost.

Studio photographs are retouched to remove unwanted items and to emphasize major items. In retouched photographs light and dark areas are often added to the original photograph in order to present a clear, well-lighted picture.

Retouched photographs often appear posed and stilted, but they usually clarify visual interpretation and improve communication.

Cropped photographs are cut or masked in order to show a single feature or section of the original photograph.

Montage photographs are composite pictures. Combining small sections of separate pictures which blend with each other, a montage picture can provide the usefulness of several illustrations. Montage photographs are often used within planning reports and as cover illustrations for planning brochures.

Drawings. Although requiring special skill and expense, original drawings are especially useful in providing a visual interpretation of physical plans for the future. For instance, if the size, scope, and arrangement of use areas in a proposed playground are important in a planning message, an original drawing would help to establish the message. Line drawings are used to show simple plans and elevations. Tone drawings are used to distinguish different areas of an illustration. Renderings are used to depict realistic, or idealist, improvements for the future. At times, drawings may be useful to illustrate an existing situation where unimportant details should be omitted and important details should be emphasized.



### Evaluating the Audience

Prior to the arrangement of a graphic presentation of planning material, the director should evaluate the characteristics of the audience for which the presentation is prepared. Before an exhibit can be arranged in a manner to impress the viewer, there are many particularities about an audience which should be discovered. Often an accurate evaluation of an audience is the difference between the careless postponement and the enthusiastic acceptance of a planning proposal.

### Average Audience

Pictorial illustrations and graphic exhibits are often weakened by an attempt to appeal to an average audience. It is a well-known fact--but frequently ignored--that an audience is composed of individuals and that each individual is different. Beliefs, hopes, apprehensions, and suspicions are developed by personal failure and success--the experience of living. The average business man or the average citizen does not exist.

Differences in the personalities of local individuals should influence the choice of style and the method of presentation. However, if a planning presentation is required for an occasion where an evaluation of the audience is not feasible, general assumptions concerning the characteristics of individuals will be necessary. Usually the layout will be only as successful as the assumptions are correct.

### Group Association

The inclination to belong to an organized group is a basic human characteristic. People express the desire to associate personal beliefs and actions with other individuals by joining civic clubs, fraternal organizations, political parties, and professional institutions.

The director of planning should seek to identify group affiliations within an audience. Often a group identity will be known--the Rotary Club, the League of Women Voters, or the Chamber of Commerce. Often a presentation is prepared for public meetings where members of various organizations represent diverse, and sometimes conflicting, beliefs and goals. By discovering the aims and purposes of the groups represented within an audience, the choice of type and of style of material can be made intelligently. By knowing the strong loyalties which exist, the director can decide which tenets need to be respected, which may be ignored, and which must be avoided.

### Class Differences

While evaluating the characteristics of an audience, consideration should be given to the personality of individuals and to the class difference of representative groups. Although it is recognized that popular opinions concerning class differences of people should be offered cautiously, there are generalities which should be given thoughtful consideration. The class differences of people might be classified as (1) age, (2) sex, (3) economic, and (4) educational.

Age. Citizens who appreciate a graphic exhibition of plans for civic improvement probably can not be classified by age, and any effort to direct a layout of planning material to a particular age group may be unsatisfactory. However, an audience of major interest to planners often can be identified by age--such as young, middle age, or old--and, for this reason, certain traditional concepts of age characteristics may be useful.

Young people are credited with less concern for economic security than older people. Youth is supposed to be more interested in new and unusual ideas and more receptive to change than persons of an older age. Certainly individuals who are under middle age are eager to enjoy the advantages of modern science. Confusing modernism with progress, immature persons are inclined to favor imaginative proposals and to overvalue novel ideas.

Middle-aged persons want to weigh carefully any proposal before making a decision. An audience which is composed of an age-group between youth and old age probably will not hold strong opinions, initially, about suggested urban improvements, preferring to obtain additional information or advice. Generally, middle-aged people are more agreeable to postponement of planning ideas than either younger or older people. Associating conservatism with reliability, mature individuals are inclined to favor standard procedures and to protest idealistic proposals.

Members of an audience who are over middle age tend to value traditional precedents and to favor practices which have been acceptable in past years. Usually fresh challenges will be resisted by old people. They are sensitive to infractions of local customs and of time-honored policies. As a generalization, persons who are more than middle-aged are likely to be cautious, suspicious of urgency, and vigilant against irresponsibility.

Sex. The differences in point of view between men and women may be important. It is well known that certain planning proposals meet with disinterestedness from women and that the same proposals inspire long discussions from men. Usually, women are prompt in acknowledging approval or disapproval of any proposal which suggests residential rehabilitation; men are responsive to plans which alter business locations. It seems to be a popular opinion that women are more concerned with family protection--financial security and social status--than men. Men are impressed by political activity and by plans which call for large expenditures of public funds. Certainly mothers are intensely interested in educational and cultural opportunities for children. Fathers are attentive where plans show industrial development and where civic projects include athletic facilities for the community.

Economic. Within an audience which shows interest in urban planning activity, it is reasonable to expect a wide

differentiation in the economic status of individuals. One group of citizens, for instance, who have financial problems may look for plans which encourage job opportunities. Another group, who have achieved economic strength and take pride in it, may be eager to maintain the status quo of an urban area.

It is a popular opinion that unskilled workers are primarily interested in civic projects which increase the standard of living of low income people and that corporation managers forecast a socialistic state if increases in economic controls continue. Frequently, labor leaders indicate that the welfare of workers is the primary responsibility of local government, while investment bankers argue that major changes in the traditional economic organization of a community tend to retard urban prosperity.

There are, however, members of the labor force who are satisfied with the economic situation in a locality. There are also numerous individuals with money who show concern for the problems of low income families and who work for the welfare of financially insecure people through philanthropic organizations.

Whatever the local condition may be, the planner should be cognizant of the economic differences of individuals and try to incorporate the economic viewpoint of the audience with the planning message of the presentation.

Educational. Thought should be given to those re-

quirements which are placed upon a graphic presentation of planning material by the viewer's educational background. Often an audience will be composed of individuals with various levels of formal instruction: uneducated, moderately educated, and professionally educated. People with different kinds of knowledge usually examine plans for civic improvement from different points of view. Probably a college education gives a broader base for opinions than a high school education. Specialized professional qualifications may provide an incentive to criticize detail more than a general educational experience.

If the educational background of an audience is unknown, the presentation should be prepared for individuals of intelligence but without training or experience in the specific subject of the planning message. The information offered should neither be beyond the understanding of nor insult the mentality of the viewer.

#### Motivation of People

While evaluating the characteristics of an audience, the planning director should consider the motivation of people--why the viewer might approve or support a particular plan. It is one thing to understand the composition of an audience, group associations and class differences; it is quite another matter to anticipate public reaction to a visual presentation. The presentation should be seeking more than just attention in the ordinary sense; it should be seek-

ing favorable action. Consequently, there should be awareness of those factors which motivate action.

Self-Interest. If the planning director fails to recognize that self-interest is a strong, motivating force in the action of people, a graphic presentation is likely to fall short of achieving its greatest potential. Mark Wiseman stated:

What interests people? First and foremost, always, themselves. Modern psychology is not being cynical when it says that the motive of every human act is somehow directly related to self interest--yes, even acts of great generosity or bravery. (2)

Although few, if any, experienced planners disagree with Wiseman on the point of self-interest, planners realize that people resent having the point emphasized. People prefer to believe that man's actions are based upon intellectual reasoning rather than primitive emotions.

While self-interest is a strong inducement to gain the approval of a planning proposal, the director should remember that self-interest is not the only incentive to which individuals react. Human beings are altruistic as well as egoistic. The planning message is, primarily, humanitarian improvement; therefore, the director should insist that certain presentations provide an audience with the opportunity to respond to appeals which not only include self-interest but also humane and patriotic emotions.

Community Pride. Community pride is a strong force of the American people. Local citizens take pride in the

achievements and feel shame in the failures of a local community.

An appeal to the community pride of an audience is often an appeal to personal pride, inasmuch as citizens tend to associate themselves with the industrial, commercial, and governmental accomplishments of the community. When individuals are presented with a local problem, and a local solution, pride will usually motivate action. When a planning message presents a community problem--the need for a storm drainage system, for instance--and the appeal is made to community pride, the audience is likely to face the problem and sincerely desire to solve it for the benefit of all the people.

Local Habits. Local citizens often are motivated by local habits. A graphic presentation which appeals to the established habits of a community should be influential in gaining support for a planning idea. Although there are times when the planning director may endeavor to change a habit of citizens--the elimination of slum living, for instance--it should be remembered that people resent change, especially alterations of firmly established patterns of living.

There may be occasions when the director will want to strengthen or reinforce a habit rather than modify it. Where citizens have a habit of referring to a town as a place of historic interest, this point could be emphasized



in a planning message when citizen support is needed to provide for the preservation of historical areas. In a like manner, a community custom of voting for bond issues to finance educational opportunities for young people might be used to gain support for plans to provide recreation opportunities for young people.

### Attitude of Citizens

All communities have citizens who are friendly toward planning, who are undecided, and who are unfriendly. Within each of these groups there are people with strong, indifferent, or weak sentiments. Although an audience will seldom, if ever, be composed entirely of individuals with the same attitude, a classification of probable attitudes might be helpful.

#### Cooperative--or friendly attitude, caused by:

1. Personal experience.
2. Special education.
3. Membership in civic organizations.
4. Business connections.

#### Neutral--or undecided attitude, caused by:

1. Inadequate information.
2. Frequent vacillation.
3. Judicious doubt.
4. Indifference.

#### Antagonistic--or unfriendly attitude, caused by:

1. Misconception of planning objectives.

2. Thoughtful analysis.
3. Opposition to change.
4. Special prejudice.

Cooperative. When a graphic presentation is prepared for viewers with a cooperative attitude, the planning message may not need to persuade the audience, but the presentation may still need to attract attention and to invite reading. The purpose of such a presentation might be to maintain favorable support for planning or to urge definite action on a specific planning proposal.

The director should be careful not to alienate advocates of planning by presenting ideas or by fostering suppositions which are contrary to local sentiments. Dormant prejudices should be avoided unless there is a compelling reason for interjecting controversial issues.

Neutral. Neutrals, whether well-informed or ill-informed, lack decisiveness, and they retain the right to unite with either advocates or opponents of planning policy. They may or may not be interested. Where the cause of indecision is a vague objection to some aspect of a planning situation, neutrals tend to reserve judgment until clarification is provided.

A belief in the impracticability of a planning proposal is a common reason for neutrals to postpone judgment. The doubtful viewer may be in favor of a recommended action, from a theoretical point of view, but may believe that the

suggested plan is unworkable. If the text of an exhibition shows that a proposed plan has been successful in another locality, or if the illustrations provide the necessary details to make the plan seem functional, the presentation may change the viewer's attitude from undecided to friendly.

Perhaps the most effective way to influence neutrals is to use the basic technique of display--produce a layout which will attract attention and invite reading. An impressive, colorful, and vigorous exhibit which includes a dramatic planning message should help to overcome indecision.

Antagonistic. It is difficult to favorably impress citizens who have an antagonistic attitude toward a planning proposal. People who possess a prejudice are not guided by logic, and any effort to combat emotional sentiment with authentic information usually results in disappointment.

When it is necessary to direct a layout toward an audience with an antagonistic attitude, the director might consider the advisability of admitting the truth of a point at issue and of emphasizing opinions of common agreement.

There is merit in admitting the truth of an unfavorable planning situation. (1) It discourages opponents from using the point to strengthen personal convictions. (2) It relieves the opponent of the need to focus thought upon a competing argument and thus provides an incentive to examine the planning message objectively. (3) It voids contention that planners are narrow-minded and unable to comprehend

both sides of a question.

Where the planner and the critic of planning can find compatibility of thought, antagonism is minimized. There is always some area of compatibility. If disagreement exists concerning a particular solution to a civic problem, presumably agreement exists that the problem needs a solution.

Although it should not be expected that one presentation will change an antagonistic attitude into a cooperative attitude, it may be expected that a carefully designed exhibit will soften antagonism--perhaps shift strong opposition to weak opposition.

#### Summary

Evaluating the characteristics of the audience should be a prerequisite for the graphic presentation of planning material. Consideration should be given to the personality of individuals and to the doctrine of organizational groups. The age, sex, economic, and educational differences may be important.

The director should evaluate the motivation of local people--the comprehensive influences which stimulate action. Self-interest, community pride, and local habits are strong factors in influencing the acceptance of a planning idea.

An investigation of the audience usually discloses that different kinds of attitudes exist. Seldom will the director find an audience completely cooperative, neutral, or antagonistic. An evaluation may show that an audience is

cooperative toward planning in general, but toward a particular plan, individuals may show various attitudes.

#### Budgeting Time and Cost

Similar to the procedure for establishing an effective budget for any planning project, the director should establish a realistic budget for the time and cost of preparing a graphic presentation. A time schedule should be determined for each project and for each member of the staff participating in the project. The material cost and the reproduction cost should be estimated, and the charge for outside technical assistance, if any, should be included in the budget.

The technical staff should be familiar with the scope and limitation of the budget. The amount of time and money allotted for the preparation of a project, and any condition stipulated in the budget, should be understood by the staff personnel in order that the requirements of the budget may be followed.

#### Time Schedule

A realistic time schedule for the preparation of a graphic presentation should be prepared, and the schedule should allow for unforeseen delays which invariably happen. When planning material is prepared for a television production or for a civic lecture, the project must be completed before a stated time. When a graphic layout is prepared for

printing or photoengraving, extra time should be allowed for unexpected postponement--such as wet weather which retards the drying of ink.

While evaluating the factors which influence the time required to prepare a graphic presentation, the director should consider the complexity of the project and the personnel available. Although the factors which create time problems vary with each presentation, the two common errors of time scheduling are, first, underestimating the time required to prepare a complex illustration and, second, overestimating the variety of work that can be accomplished by one technician in a given period of time.

#### Cost Estimate

The estimated cost of a graphic exhibition of planning material will vary with the size and extent of the exhibition. A small black and white panel for use with a civic lecture will require only a fraction of the cost of a complicated presentation which is prepared for general exhibition. Photographic illustration for a short report will require only minor expense as compared with the cost of illustrating an elaborate brochure which is produced in color.

When maps, charts, and photographs are available and on file in the planning office, the cost of preparing an exhibition may be negligible. When new material must be prepared, or research data collected and analyzed, the cost

may be large. The preparation of charts and graphs, usually, costs less than the preparation of maps. Documentary photographs are less expensive than studio photographs. Usually tone drawings cost more than line drawings, and renderings are more expensive than most other forms of graphic illustration.

The unit cost for the reproduction of certain types of graphic material will decrease as the number of copies is increased. For other material the unit cost will remain relatively constant. The cost for printing and photoengraving is different in different geographic locations and may vary with different companies in the same location. Although a basic unit cost for printing is usually established in each city, charges are made for extra labor and material, and a printing job is seldom completed without extra labor or material.

If a graphic illustration is prepared on transparent paper, tracing cloth, or acetate, a form of contact printing will be the least expensive. Photocopying is relatively expensive for large size material. The photo-offset process of reproduction may be expensive or inexpensive depending upon the number of copies required. When color is used with a published brochure or report, the cost of printing is considerably more than for black and white pages.

#### Outside Assistance

While considering the budget for staff time and cost

of preparing a graphic presentation, the director should consider the advantages of employing outside technical assistance. The services of a visual presentation specialist may be worthwhile. The preparation of a relatively simple illustration by staff personnel would be unquestioned, but the preparation of a complicated exhibition or an elaborate brochure may need the services of a specialist.

While considering the expense of using outside technical assistance, the director should consider two major points. First, the time and effort of staff personnel might be more efficiently employed on other planning projects than on the preparation of an elaborate exhibition. Second, a specialist may be able to complete a presentation project in less time and for less total cost than staff personnel.



## CHAPTER III

### THE TECHNICIAN'S FUNCTION

The technician's primary function in the presentation of a planning message is the preparation of graphic material. The technician should prepare the illustrations for planning reports and arrange the layout for graphic exhibitions. Fundamentally, the technician should be a craftsman. The term craftsman, in this instance, implies the ability to project ideas of the director and to develop unusual techniques for graphic presentation. Where originality and imagination are required, the technician should supply these qualities.

The technician should be able to provide the planning agency with a variety of knowledge and experience. When the director asks for advice on the use of materials to illustrate a planning message, the technician should be prepared to offer recommendations which are valid both from a design and from a planning point of view. When graphic supplies and equipment are needed, the technician should know the sources of supply. Although detailed knowledge of the printer's trade is not necessary, the technician should be able to coordinate the problems of graphic presentation with the problems of commercial printing. As a minimum requirement, the technician should be experienced in (1) using design principles and (2) preparing graphic exhibitions.

### Using Design Principles

Before actually beginning the arrangement of a graphic presentation of planning material, the technician should acquire a thorough understanding of the principles of design. Although a mere comprehension of these principles will not ensure a successful presentation, knowledge concerning these principles should assist the technician in achieving a layout arrangement which is esthetically satisfying in addition to being functional.

Design principles are applicable to all forms of visual composition whether a statistical graph is incorporated within the text of a planning brochure or a photograph is placed on a separate sheet. The principles are useful in the arrangement of illustrative material for written reports, civic lectures, and public exhibitions.

The following discussion provides information on the design principles which influence the visual pleasantness of a graphic presentation. For this discussion, the principles of design are classified as (1) balance, (2) proportion, (3) movement, (4) contrast, and (5) emphasis.

#### Balance

In the organization of a graphic presentation, balance is the arrangement of display units--headlines, illustrations, and text--to achieve an agreeable relationship. Balance is the principal means by which order is obtained.

When a layout is properly balanced, the display lines, masses, and tones are arranged into a pleasing relationship which attract attention and invite reading. Stated as a broad generality, layout is a matter of balance, and balance is a matter of spatial unity.

If a single additional object is added to a balanced arrangement, adjustments in the size, tone, and position of units will be necessary. A properly balanced layout is so sensitive to modification that any change in the formation of one unit will adversely affect the entire sheet.

Formal Balance. When items within a graphic exhibition have the same characteristics on each side of a centrally located imaginary line, the arrangement is said to be formally balanced or symmetrical. Some authorities distinguish between the two terms by stating that a layout which has identical properties on both the right and left half of a sheet should be called symmetrical while a layout which has an equal weight of interest, but contains minor differences on each side of a sheet, should be called formally balanced. Usually the terms are interchangeable.

Formal balance is the easiest kind of layout to arrange, requiring only simple imagination to duplicate identical features on each side of a vertical axis. Usually, formal balance is classic and conservative; it may also be static. When a planning subject implies restraint or when the display theme indicates dignity, formal balance is usu-

ally effective. When the planning subject or display theme implies action, a neighborhood playground, for instance, formal balance should be used only with caution. Formal balance is inactive; playgrounds are active.

Informal Balance. Informal balance is the distribution of various lines, masses, and tones to bring the layout into asymmetrical balance. It is the grouping of items of different sizes and shapes to achieve a pleasing relationship of space without the placement of objects of equal size at equal distance from the center. It is more subtle and, therefore, more difficult to execute than formal balance.

Informal arrangements seek to establish harmony in composition by balancing a large mass with several small masses or by balancing a bright tone with several neutral tones. For instance, a heavy mass or tone which is placed on one side of an arrangement and near the center of a sheet should balance a light mass or tone which is placed on the opposite side but farther from the center.

Sources of information on layout often state, or intimate, that strictly formal arrangements are monotonous, whereas informal arrangements offer freedom for unusual composition.

### Proportion

Geometric forms have definite structure and shape which have been accepted over the years as objects with pleasing proportions. The square, the circle, and the

triangle have been long regarded as satisfactory figures. Because of common knowledge these proportions are visually obvious and easily identified by viewers of all age groups. When used with a graphic presentation of planning material, geometric forms become dominant areas, and due to familiarity, they may add a desired or undesired emphasis to a particular section of a planning message.

When used in a planning presentation, geometric proportions should be readily distinguishable. The rectangle should neither approach the dimensions of a square nor the area of two squares. If the length of a rectangle is too short, discomfiture exists in the mind of the viewer as to whether the form is a rectangle or a square; if the length is too long, a tendency exists for the mind to divide the area into two squares and thus to create competition between the two parts.

Although established forms have pleasing proportions, the planning technician should remember that tedium can develop if familiar outlines are overextended. Usually it is wise not to rely on the preciseness of standard proportions but to use them as a starting point.

### Movement

Movement in layout is the manifestation by which the eye is directed throughout all areas of the sheet. It is the effect obtained by properly proportioned line and mass to guide the viewer's attention from one planning item to

another planning item of the exhibition. Frequently, movement is dominated by focal points of pictorial items; often it is a matter of skillfully arranging tone density and type size.

The visual forces which establish a connection between the planning material in various parts of the layout first attract the eye to a major point of interest; then, following a prearranged course, they direct the eye from one display unit--perhaps along a given line--to a group of small points and then to another display unit. The prearranged course may or may not be obvious.

Because the reading habit of people is from left to right and from top to bottom of a sheet, a layout arrangement which controls the viewer's awareness from the top left corner of an exhibition, through all sections of the layout, to the bottom right corner of the sheet, usually fulfills the purpose of movement.

### Contrast

Contrast is the major means of obtaining visual interest in a graphic presentation of planning material. In order for the principal points of a planning message to be emphatic, the areas of a layout must have contrast. Although contrast can be obtained by various methods of using planning material, the popular method is through the use of either (1) shape, (2) line, (3) size, or (4) tone.

Shape. Within a planning exhibition, the outline of

the area which contains a major point of the planning message may differ in shape from the other areas in order to obtain contrast. For example, if the text of a planning layout is the important unit of the exhibition, the area of the text should have a different shape from the other units.

In a layout arrangement which uses several different shapes, the value of one particular shape will depend upon individuality. For instance, a free form--a shape with an irregular outline--will demand special attention when contrasted with several geometric shapes, but an irregular shape, probably, will not call attention to itself if the other areas within the layout are also irregular. However, care should be taken to prevent a multitude of different shapes--each one trying to compete for attention--from defeating the purpose of contrast.

Line. A line may show contrast with another line by width and by direction. In a planning exhibition, thin lines should contrast with thick lines, and horizontal, vertical, and diagonal lines should contrast with one another to gain a variety of interest. Lines may be straight or curved, regular or irregular, and broken or continuous.

Line contrast is particularly noticeable in a planning layout when a variation in direction is present. Any point where two lines join or cross is a focal spot within a layout, and no two lines should meet in a manner to create a point unless the viewer's attention needs to be called to

that area of the arrangement. Diagonal lines which intersect to form an angle demand special attention because the contrast in linear movement tends to form an arrow.

Size. Although the units within a planning exhibition may have the same shape or line interest, they may contrast in size. The major unit of a planning exhibit may need to be larger in size than minor units; however, care should be taken to prevent any one unit from overweighing an arrangement to such an extent that good proportion and balance are lost. Large masses, particularly those which appear stiff or heavy, tend to give a feeling of strength to a planning message, but large areas may add an element of coarseness. Small areas, especially those which contrast with large areas, tend to give an effect of softness.

Where contrast in size is gradual and consistent, the eye tends to follow the gradation from the largest area to the smallest area, and the viewer is more aware of movement in direction than in contrast.

Where it is desirable to show a group of units of equal size, it is more difficult to obtain a pleasing arrangement with two or four units than it is with three or five units. Two units tend to cause a division of interest, and four units tend to create an isolated, formal composition.

Tone. Contrast in tone is obtained by the use of dark and light masses. Variations in tonal values are bene-



ficial in an exhibition of planning material to assist in balancing complex arrangements and to emphasize the relative importance of different items of the planning message.

Because extreme differences in tone help to attract the viewer's immediate attention, a tendency exists to overuse dark headlines and dark illustrations on white backgrounds. Black lettering on a white background or white lettering on a black background contribute to the readability of a planning message from a distance, but large areas of black should be used with restraint. Dark tones, particularly black, may give a layout an atmosphere of solemnity and perhaps even gloom.

The advantage of the subtle relationship between tones of grey is often overlooked by inexperienced planning technicians. The wide choice of grey tones provides the technician an excellent means of unifying a layout. Sometimes the judicious use of grey will enhance a composition and cause better readability than the sharp contrast of black and white.

### Emphasis

When arranging a layout for a graphic presentation of planning material, the major unit of the exhibit should be emphasized. All aspects of a planning message will not be of equal importance; therefore, a means by which certain items of the message stand out conspicuously from other items is necessary. Through the use of emphasis, the layout

stresses the essential matter of a planning message. Where major emphasis is given to the subject of a graphic exhibition, minor emphasis may be given to some point of the planning message which supports the subject.

Competition for attention between different areas of a layout is seldom acceptable. There may be times when several items of importance are incorporated within a planning exhibit, but one area of the layout should be emphasized, with the other areas subordinate or with each point of the message subordinate to another point in a gradation of importance. Where each unit within a layout is equally emphasized, there is no emphasis.

#### Preparing Graphic Exhibitions

After obtaining the available facts concerning the planning message, the audience, and the budget, and after acquiring knowledge of design principles, the technician should be ready to begin preparing a graphic exhibition. At this point the technician becomes purely a craftsman. The aim of craftsmanship, in this instance, should be the accomplishment of a graphic presentation which clearly presents the planning message in a manner to attract attention and to gain favorable action from viewers. The technician should remember that the responsibility for the comprehension of a planning message, as expressed in a graphic exhibition, belongs to the technician--not to the viewer and not

to the professional staff.

When preparing a graphic exhibition the technician's major tasks are (1) considering the viewer, (2) establishing the subject and theme, (3) arranging the layout, and (4) applying color.

#### Considering the Viewer

While contemplating the organization of a graphic exhibition, the viewer's interest and background should be given careful consideration. The technician should consider the range of vocabulary and the form of illustration which the viewer will understand and accept. The capacity to read a map and the ability to visualize a plan should not be taken for granted.

When considering the viewer, the technician should give serious thought to (1) the type of expression and (2) the style of arrangement.

Type of Expression. The type of expression used in a graphic exhibition is often an important consideration. Although a layout should be able to capture and to hold the interest of the viewer, the manner of attracting attention should not be so forceful that the viewer is irritated. An emotional or sensational statement which is expressed in the headline of an arrangement may command attention, but it may receive an unfavorable reaction from the viewer. A ludicrous photograph or a grotesque form of illustration may be interesting to some viewers, but expressions of this kind,

likely, would be resented by sincere viewers and would, therefore, be self-defeating. A coarse or crude type of expression in the text of a graphic exhibition of planning material would not be appropriate, and a technique of bold flippancy would misrepresent the serious nature of sound planning proposals.

Style of Arrangement. The style of a graphic exhibition should be compatible with the interest of the viewer. For instance, a layout which is prepared to interpret the function of industrial zoning should make an appeal to the viewer in a different style of arrangement from a layout which is prepared to depict the advantages of a neighborhood rehabilitation project. The interest of the viewer might suggest a style which expresses action (for playgrounds) or expresses leisure (for parks) and the style might suggest an appeal which is masculine or feminine or adolescent. The style might be new and unusual (for young people) or classic and traditional (for older people). Contemplating the variation in viewer interest and the number of possible styles, it becomes apparent that determining a style of arrangement requires more than casual consideration.

#### Establishing Subject and Theme

The technician should establish a clear differential between the subject and the theme of a graphic exhibition. The subject is the plan to be promoted or the planning idea to be presented. The theme is the approach or the line of

action taken. For example, within an exhibit showing the proposed relocation of a major highway around a central business district, the subject would be the highway relocation; the theme might be improvement in traffic condition, or it might be conformity with an existing master plan. Exceptions notwithstanding, a single exhibition should contain only one subject and preferably one theme.

Subject. Although a layout arrangement should contain only one subject, the arrangement might show several parts of that subject. A graphic exhibition might present a new master plan and depict the different parts of the plan. Both a land-use plan and a zoning plan might properly appear within the same arrangement provided the subject of the planning message is the relationship between the two plans.

Where population distribution of an urban area is the subject of a presentation, the arrangement should not also include a school location plan; however, where a school location plan is the subject, population distribution might be the theme, showing a reason for the proposed school location.

Theme. Obviously there are many different themes which might be used for a given subject. The task is to survey them all, understand the value of each one, and make a selection based upon the planning message. Objective questions often help in determining a proper theme. The following list is illustrative, not all-inclusive.

1. Should the theme concentrate upon the one subject or emphasize the subject's position within a larger complex? (Should the subject be related to a comprehensive plan?)
2. Should the theme show competition between different ideas or proposals? (Should the theme show the advantages of one plan as opposed to an alternate plan?)
3. Would it be wise to emphasize a major benefit of the subject and subordinate the other benefits, or would it be more effective to show all of the advantages as one unit?
4. Which one of several possible themes would best establish a favorable relationship with the viewer?

Questions and answers are useful in choosing a theme, and they assist in clarifying the function of a theme, but the theme usually can be determined by the major aspect of the planning message or by the planning purpose of the exhibition.

#### Arranging the Layout

An experienced technician usually begins a layout arrangement by experimenting with the spatial distribution of headline, illustration and text. The experiments are made in miniature sizes, called "thumb nail" sketches, and details are omitted. In one sketch the headline may be placed at the top of the sheet, the illustration in the center, and the text at the bottom. In another sketch the illustration may be placed on the right side, the text on the left side,

and the headline at the bottom. Other sketches will have different locations, different sizes, and different shapes.

The technician usually experiments with formal and informal balance and with different approaches to proportion, contrast, and emphasis. Eventually one arrangement is obtained which seems to express the planning message and to express the special interest of the audience. This arrangement, which is in a miniature size, is then developed at full scale and studied in detail.

When the arrangement is studied in detail, the technician should consider (1) frame lines, (2) focal centers, (3) borders, (4) margins, and (5) bleed pages.

Frame Lines. At the beginning of the detailed study of an arrangement of planning material, the surface space of the exhibit should be determined by establishing the frame lines of the exhibit area. The frame lines provide a point of departure for the technician and, to a large extent, dictate the preferable location of display units. The horizontal and vertical edges of a sheet may constitute the frame lines of the exhibition, but, if a margin is used, the interlines of the margin become the frame lines. Occasionally a technician will create a layout arrangement first and then attempt to establish the exhibit space in conformity with the arrangement, but this procedure usually causes difficulty. For instance, a square figure may change into a diamond figure when it is correlated with the shape of exhibit

space, and the figure may be too large or too small when it is correlated with the size of exhibit space.

Focal Centers. A focal center of the exhibit space is usually the focal point for the placement of the major item of the planning message. In a formal layout, the focal center is a point on the centered, vertical axis; in an informal layout the point is located either to the left or right of a center line.

Writers on the subject of layout usually refer to three different focal centers: (1) the actual center, (2) the optical center, and (3) the esthetic center. The actual center is equidistant from the frame lines, the geometric center of the sheet. The optical center is a point on the bisecting, vertical line, slightly above the actual center. The esthetic center is a point above and to the left of the actual center.

Borders. A linear border, whether drafted in bold or delicate lines, may assist in providing character or style to a layout. It may also assist in establishing unity. A layout which is entirely typographical, and austere in character, may appear overly simple without a clearly delineated border. Ornamental borders have been used to substantiate the theme of a graphic presentation, and pictorial borders have been used to illustrate a planning message.

Margins. The white area around the body of a layout arrangement is part of the space which needs to be considered



in the organization of a layout. Often the importance of a margin is misunderstood; it is not a factor in communication, but it is a factor in visual composition.

A margin which is dull and bulky may be conspicuously lacking in interest. An ostentatious margin may demand undue notice, and it may allure the viewer's attention from the planning message. Where a margin of great width is allowed, it may usurp valuable display space, but it may provide the precise element which is needed to give interest to the composition.

A margin of reasonable width should furnish a desirable contrast with the display units. Where several different layout arrangements of various subjects are exhibited in adjacent locations, a white area which surrounds a particular arrangement will assist in maintaining a separate identity for that arrangement.

Bleed Pages. Opposite to the technique of providing margin space is the procedure of extending a pictorial layout to the edges of the sheet. The result of this procedure is known as a bleed page. Bleed pages spread the pictorial character of an illustration to the edge of a page and imply an extension beyond the sheet limits.

The attention value of a bleed page is important, and this technique of presenting a comprehensive illustration is especially effective for covers of planning brochures.

### Applying Color

Planning exhibitions, generally, are presented to the public in color. Where a planning exhibition is predominantly black and white, color often is used to emphasize important points of the planning message.

The advisability of using color will vary with each situation. Although the use of color may be inappropriate for a specific exhibition, color has many advantages, and it can perform several functions better than black and white. It can, for instance:

1. Attract attention to the presentation.
2. Provide a favorable first impression for the exhibit.
3. Emphasize a major feature of the planning message.
4. Contribute visual clarity to the arrangement.

Although the planning technician should not need to make an exhaustive study of the science of color, a basic understanding of color as applied to planning exhibitions is desirable. As a minimum, the technician should understand (1) nomenclature, (2) color harmony, and (3) color visibility.

Nomenclature. There is often considerably misunderstanding when commercial nomenclature of color is used; for example, chartreuse, rose, orchid, and plum. Since these names are associated with various hues, it is generally considered proper to refer to colors by using only the names of primary and secondary colors.

The three primary colors are red, yellow, and blue. Primary colors are basic; they cannot be obtained from a mixture of other colors. The secondary colors are orange, green, and purple. (Purple is sometimes called violet.) Orange is a mixture of red and yellow in such a manner that the color, orange, has an equal affinity with red and yellow. In a like manner, green is a blending of yellow and blue. Purple is a blending of blue and red. From mixtures of primary and secondary colors, it is possible to obtain an almost unlimited number of hues; for example, reddish orange, yellowish green, and bluish purple.

Felten (3) expressed the opinion that tertiary colors are russet, citrine, and olive. Russet is a mixture of purple and orange. Citrine is a mixture of orange and green. Olive is a mixture of green and purple. However, a grouping of colors into a tertiary nomenclature is not widely accepted. If a third classification is needed, it is termed intermediate.

Color Harmony. Harmony in color is the result attained, or the effect produced, by bringing together two or more colors to form an attractive combination. Color harmony is a matter of pleasing relationship between colors. The three major types of color harmony are (1) monochromatic, (2) analogous, and (3) complementary.

A color combination which uses a light tint, a medium tone, and a dark shade of the same color is called monochro-

matic harmony. It is the extreme in close relationship of color. If, for instance, the cover for a planning brochure is arranged with light blue paper, medium blue lines, and dark blue letters, the color harmony would be monochromatic. The composition would be safe from a clash of color. The cover probably would be pleasing in appearance, but it might approach color monotony; and it might lack the interest which comes from a contrast of color.

Analogous harmony limits the possibility of color discord by using similar hues of the same color. Unity is produced by associating colors which follow one another on a color circle; for example, yellowish green, green, and bluish green. An arrangement of planning material which uses purple letters on a light purplish blue paper might be somber in appearance, but harmony would exist; and the arrangement would have a pleasing variety of interest.

Complementary harmony is the association of one primary color and the secondary color which is produced by mixing the other two primary colors. Red and green or yellow and purple or blue and orange are complementary color combinations. Complementary harmony might use an association of greenish blue with reddish orange. Within an arrangement which uses primary and secondary colors in full strength, the colors seem to antagonize one another and fail to produce harmony. However, if one color (or perhaps both) is modified with white or grey, the result is usually pleasing.

Color Visibility. The visibility of color is controlled primarily by contrast. Dark lettering on a light background or light lettering on a dark background will provide effective readability.

Certain colors may increase or decrease the visibility of a graphic presentation of planning material. Typography which is printed in green or yellow is usually difficult to read. Generally, green type is disturbing to the eye and yellow type will not contrast with white paper; however, when green or yellow lettering is used on dark grey paper, the result is quite legible.

Red is an especially strong color and tends to dominate the viewer's attention more than other colors. Because of its power to attract attention, red may focus observation upon itself rather than serve as a factor of communication. For example, if a planning presentation includes a map which shows existing streets in red and proposed streets in black, the old streets will appear to be the important feature of the illustration and misunderstanding may result.

Writers on the subject of color seem to agree on the following points which should be beneficial to planning technicians in the preparation of graphic exhibitions.

1. Color visibility is intensified through the use of contrast in colors.
2. Warm colors (red, orange, and yellow) are more quickly noticed than cold colors (green, blue, and purple).

3. A tint of color has less visibility when used against a tone of the same color than when used against black or white.
4. A light color has greater visibility when used against medium grey than when used against black or white.

## CHAPTER IV

### CONCLUSIONS

Perhaps the major conclusion to be drawn from this study is the fact that a variety of intangible factors precludes the establishment of a standard procedure for the preparation of a graphic presentation of planning material. There is no one procedure which is applicable to every situation. Each type of planning message, each type of audience, and each type of layout arrangement may require a different procedure. The general principles for preparing a graphic presentation may be stated, but the specific details vary, and the preparation of a graphic presentation involves the use of a great many details. These subtle, and perhaps vague, details are too important to be overlooked, yet the process of regulating and controlling their use is indefinite.

A second conclusion is the need for determinates in deciding the quality and quantity of graphic material required to properly establish a planning message. Standards are not available for selecting the right chart, the right photograph, or the right drawing for a particular message or for a particular occasion.

Standards also are unavailable for deciding whether

or not to use graphic material. It is somewhat unsatisfactory to state that illustrations should be used with written and oral presentations when words alone are not likely to secure clearness. Deciding when words are clear or not clear is often relative, a matter of opinion. Professional planners who take visual communication seriously often find that organizing planning ideas and evaluating an audience are easier than judging when graphic material provides only an attractive element and when the material performs a practical function.

Another conclusion is the lack of certainty concerning the duties which rightly belong to the planning director and to the planning technician. Although an effort has been made to differentiate between the functions of the director and the technician, the difference is not always clear. The functions performed by the director and by staff members vary with local circumstances. If a director is more experienced in establishing visual communication than other members of the staff, the director may take an active part in the preparation of a graphic presentation. If a technician is qualified in services normally expected of the director, the technician may be assigned comprehensive responsibilities. In a small office the director may be forced to originate and to produce a presentation. In a large office the director may only decide that visual communication is needed. Ideally, a graphic presentation of planning material



should be a team project, and each member of the team should be familiar with the function of others.

Whatever the local situation may be in a particular planning office, knowledge of the general procedures and the basic principles of graphic presentation should be helpful. It is well recognized that certain planning material may be presented more swiftly and more efficiently by visual communication than by written or oral communication. Pictorial material is often needed to illustrate reports and lectures, and graphic exhibitions are often needed to attract certain members of the public who are difficult to attract by other means of communication. Information concerning factors which influence the successful preparation of a graphic presentation should be useful.

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